

**Notice of Allowability**

Application No.

10/552,827

Examiner

HONGMIN FAN

Applicant(s)

KUWAJIMA, MASATOSHI

Art Unit

2612

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/8/208.
2. ☒ The allowed claim(s) is/are 8 and 10-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### **Examiner's Amendment**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James K. Folker on 2/29/2008.

The claim 10 has been changed to as follows: line 22, the fifth word "arid" changes to – and --.

### **DETAILED ACTION**

#### ***Allowable Subject Matter***

Claims 8, 10, 11-14 are allowed. The following is an examiner's statement of reasons for allowance: Prior art fails to show a tire alarm device that gives a warning against a runflat operation limit of a pneumatic tire during runflat operation having a reinforcement layer disposed in each sidewall thereof for enabling the runflat operation, comprising: a tire temperature sensor disposed on an inner surface of one of the sidewalls facing the reinforcement layer therein, the tire temperature sensor being used to warn of the runflat operation limit, a processing means that determines whether or not the tire has reached a zone of the runflat operation limit based on a signal detected by the temperature sensor; a warning means that gives a warning if the processing means determines that the tire has reached the runflat operation limit zone; a tire side unit having the tire temperature sensor; and a transmitting means that transmits the signal detected by the tire temperature sensor, and a vehicle side unit having a receiving

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means that receives the signal from the transmitting means, the processing means and the warning means, wherein the vehicle side unit has a memory that stores a preset limit temperature data according to the runflat operation limit zone, and wherein the processing means compares a temperature data value of the signal detected by the tire temperature sensor with a value of the limit temperature data and determines that the tire has reached the runflat operation limit zone if the temperature data value of the detected signal exceeds the limit temperature data value; wherein the tire side unit has a tire inner pressure sensor for detecting pressure in a cavity of the pneumatic tire, and wherein the processing means determines whether or not a value of the pressure detected by the tire inner pressure sensor is below a prescribed threshold value, and determines that the tire is operated in a runflat condition if the detected pressure value is less than the prescribed threshold value, and determines whether or not the tire has reached the runflat operation limit zone if the processing means determines that the tire is operated in the runflat condition, and wherein the memory stores time history data of the temperature detected, and wherein the processing means calculates a sectional approximate function of the temperature time history data by using at least four consecutive temperature data including a latest temperature data in the temperature time history data stored in the memory if the processing means determines that the tire has not reached the runflat operation limit zone, and estimates values of the temperature after the latest temperature data in time series by an extrapolation method using the sectional approximate function, and calculates a time interval reaching the limit temperature data value on the basis of the estimated temperature values.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hongmin Fan whose telephone number is 571-272-2784. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davetta Goins can be reached on 571-272-2957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HF

/Davetta W. Goins/

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